## Case Study: Who Was "A Mourner"?

Questions about authorship of unattributed documents are one of the many problems confronting historians. Statistical analyses, when combined with other historical facts, often help resolve these mysteries. One such historical conundrum is the identity of the writer known as A MOURNER. A letter appearing in the February 26, 1770, issue of *The Boston Gazette and Country Journal* is as follows:

The general Sympathy and Concern for the Murder of the Lad by the base and infamous Richardson on the 22d Instant, will be sufficient Reason for your Notifying the Public that he will be buried from his Father's House in Frogg Lane, opposite Liberty-Tree, on Monday next, when all the Friends of Liberty may have an Opportunity of paying their last Respects to the Remains of this little Hero and first Martyr to the noble Cause—Whose manly Spirit (after this Accident happened) appear'd in his discreet Answers to his Doctor, his Thanks to the Clergymen who prayed with him, and Parents, and while he underwent the greatest Distress of bodily Pain; and with which he met the King of Terrors. These Things, together with the several heroic Pieces found in his Pocket, particularly Wolfe's Summit of human Glory, gives Reason to think he had a martial Genius, and would have made a clever Man.

## A MOURNER.

The Lad the writer refers to is Christopher Sider, an 11-year-old son of a poor German immigrant. Sider was shot and killed on February 22, 1770, in a civil disturbance involving schoolboys, patriot supporters of the nonimportation agreement, and champions of the English crown, preceding the Boston Massacre by just a couple of weeks. From a historical perspective, the identity of A MOURNER remains a mystery. However, it seems clear from the letter's text that the author supported the patriot position, narrowing the field of possible writers.

Ordinarily, a statistical analysis of word frequencies contained in the contested document compared with frequency analyses for known authors permit an identity inference to be drawn. Unfortunately, this letter is too short for this strategy. Another possibility is based on the frequencies of word lengths. In this case, a simple letter count is generated for each word in the document. Proper names, numbers, abbreviations, and titles are removed from consideration, because these do not represent normal vocabulary use. Care must be taken in choosing comparison texts, since colonial publishers habitually incorporated their own spellings into their essays they printed. Therefore, it is desirable to get comparison texts from the same printer the contested material came from.

The following table contains the summary analysis for six passages printed in *The Boston Gazette and Country Journal* in early 1770. The Tom Sturdy (probably a pseudonym) text was included because of the use of the phrase "Friends of Liberty," which appears in A MOURNER's letter, as opposed to the more familiar "Sons of Liberty." John Hancock, James Otis, and Samuel Adams are included because they are well-known patriots who frequently wrote articles carried by the Boston papers. Samuel Adams' essay used in this analysis was signed VINDEX, one of his many pseudonyms. The table presents three summaries of work penned by Adams: The first two originate

from two separate sections of the VINDEX essay and the last is a compilation of the first two.

## Summary Statistics of Word Length from Sample Passages by Various Potential Authors of the Letter Signed A MOURNER

	Tom Sturdy	John Hancock	James Otis	Samuel Adams-1	Samuel Adams-2	Samuel Adams-1 & 2
Mean	4.08	4.69	4.58	4.60	4.52	4.56
Median	4	4	4	3	4	4
Mode	2	3	2	2	2	2
Standard deviation	2.17	2.60	2.75	2.89	2.70	2.80
Sample variance	4.70	6.76	7.54	8.34	7.30	7.84
Range	13	9	14	12	16	16
Minimum	1	1	1	1	1	1
Maximum	14	10	15	13	17	17
Sum	795	568	842	810	682	1492
Count	195	121	184	176	151	27

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- 1. Generate a data set consisting of the length of each word used in the letter signed by A MOURNER. Be sure to disregard any text that uses proper names, numbers, abbreviations, or titles.
- 2. Calculate the summary statistics for the letter's word lengths. Compare your findings with those of the known authors, and speculate about the identity of A MOURNER.
- **3.** Compare the two Adams summaries. Discuss the viability of word-length analysis as a tool for resolving disputed documents.
- 4. What other information would be useful to identify A MOURNER?